UNIVERSITY of York

This is a repository copy of *York Digital Library : an ecological view of interactions and systems*.

White Rose Research Online URL for this paper:
https://eprints.whiterose.ac.uk/8516/

Other:
Robertson, R.J. and Allinson, J. (2009) York Digital Library : an ecological view of interactions and systems. CETIS, University of Strathclyde and University of York.

Reuse
Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown
If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

White Rose university consortium
Universities of Leeds, Sheffield & York

eprints@whiterose.ac.uk
https://eprints.whiterose.ac.uk/

2009

York Digital Library:

an ecological view of interactions and systems

This case study of York Digital Library examines the development of a digital library of images at the University of York. In particular, it examines the project phase of the Fedora-based digital library and its provision of service to the History of Art department. The case study examines the technical, cultural, and human interactions of the digital library using the metaphor of an ecosystem. This approach is based on earlier work by the Repositories Research Team

R.J. Robertson and J. Allinson
CETIS, University of Strathclyde and University of York
3/30/2009

Table of Contents

Introduction

This case study examines an institutional digital library of multimedia materials, and employs ecologically-influenced approaches to support the articulation and discussion of the critical issues it faces. The study builds on earlier work by the Repositories Research Team examining the possible use of metaphors from ecology in modelling interactions and has been carried out in collaboration with the digital library staff at the University of York.[1]

From the digital library's website (http://www.york.ac.uk/library/electroniclibrary/yorkdigitallibraryyodl/),

> The Digital Library Project is running for three years (August 2007 - July 2010) and is building a University-wide Digital Library service (York Digital Library - YODL) for multimedia resources used in or created out of teaching, research and study at the University. Over the next three years the project will create a repository for resources in a variety of formats, including sound, archives, film and images, from various disciplines, including music, art history, theatre, film and television, psychology, along with archival collections from the Borthwick Institute. YODL complements both the university's research publications held in White Rose Research Online and the digital teaching materials in the University's Yorkshare VLE. At the end of its three-year project phase, York Digital Library will be offered as a permanent service to the University, part of the Library & Archives commitment to delivering services virtually for the whole University, and beyond.

[1]

This work is licensed under a Creative Commons Attribution-Noncommercial-Share Alike 2.5 UK: Scotland License.

Key Questions

After some discussion we decided that the key overarching issue for digital library (hereafter, YODL) was the transition from service development project to full service. Managing this transition requires not only a good understanding the current pilot phase of the service but also the ability to present and discuss the dependencies and tensions inherent in the transition with stakeholders not immediately involved in the service. Although examining the interactions of YODL with other repositories would be interesting, the case study has focused on the processes of collection development, management, and use. It is these processes which will have to grow in scale and transfer to different departmental contexts.

Species

The species present in the YODL ecosystem include:

- DL staff
- Other library staff
- External bodies
- Other IT related staff
- History of Art department staff
- Unique collections (physical and digital)
- Non-unique/common collections (physical and digital)
- Systems/ tools

It is worth noting that the physical and digital collections present (divided by format) also share another key feature that they contain both unique and common objects. This actually creates a matrix of the properties of these collections:

	Physical	Digital
Unique		
Non-unique/ Common		

Interactions

The diagrams provide a fuller view of the interactions in the ecosystem; some example interactions present in the YODL ecosystem are:

- Digitization
- Content migration (VLE to YODL)
- Funds
- Line of communication

- Share staff
- Service provision
- Collection appraisal
- Advocacy

Although all the interactions are by their nature dynamic, it should be noted that some of the interactions are ephemeral. Whether they represent interactions that are intrinsically finite – such as the migration of content form the vle to the digital library- or interactions that are limited by external factors – such as the funding available for the digitization project, many of the interactions recorded are evolving and tied to the project phase of YODL.

Environmental Factors

Environmental factors influencing parts of or the entire YODL ecosystem include:

- Intellectual Property Rights (IPR) restrictions (generally)
- Copyright Licensing Agency (CLA) license management requirements
- Pilot service
- Changes in working practice in transition to digital

Although IPR-related issues influence the overall shape of the service, it is worth drawing out the impact of CLA license terms as a separate environmental factor. The terms of the license permitting the creation and educational use of digital images from materials not yet in the public domain require that access to these images be controlled on a course specific basis. These terms not only impact on the management of materials but also create usability issues about displaying metadata about the assets.

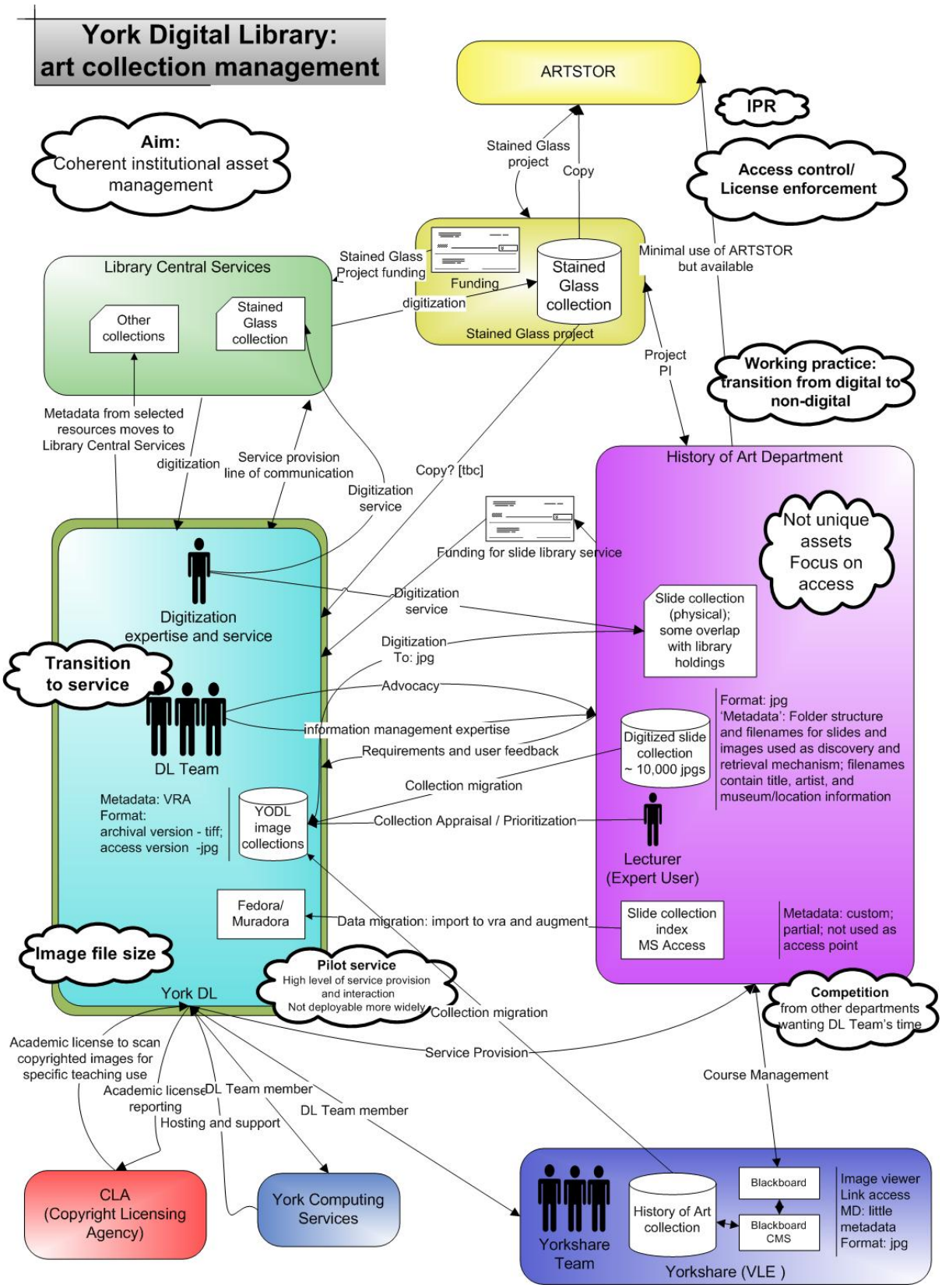

Figure 1 YODL History of Art collection management

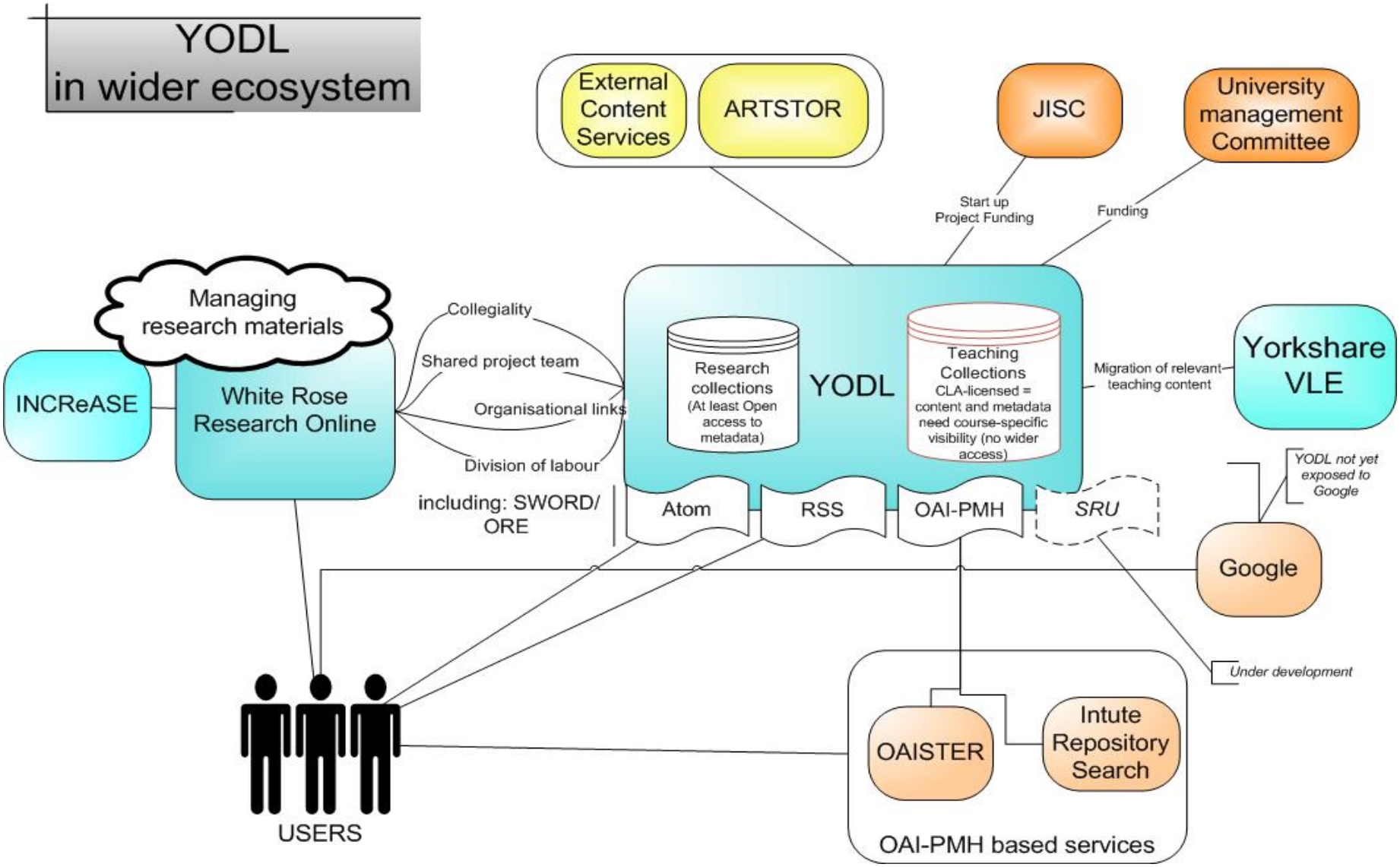

Figure 2 YODL in its wider ecosystem

Transition to service emerging issues

As YODL moves towards becoming a service it is considering what lessons can be learnt from the pilot project with the History of Art department. This initial phase has spent a significant amount of time setting up the repository and establishing basic content models.

Temporary workflows

Part of the development of the digital library for the History of Art department slide library service has been the gradual deprecation of resources from the digital and slide collections held by History of Art or stored in Yorkshare (the VLE) as copies have been transferred into YODL or superseded by new or alternative versions. Given the number of images involved in the workflows supporting this transaction this has taken a lot of project's time and energy. However, as the necessary image collections are migrated this aspect of the work will decrease resulting in a more regular and more sustainable workflow. Although the establishment of workflows for content migration from other departments resources will often begin with legacy set of resources they are less likely to have the same combination of volume and rights clearance issues. Many of the workflows and interactions present in the current Art collection ecosystem are likely to deprecate.

Collection species

There are two clear species of asset of relevance to the YODL ecosystem: unique images and non-unique/common images. Whether held as physical or digital objects their primary grouping for YODL appears to be whether they are unique (research/ institutionally 'owned' objects) or non-unique (derivative copies of objects owned or located elsewhere created for teaching or related purposes). This differentiation directly impacts how YODL interacts with them – affecting the type of digital image created, what can be stored, who it is available to, for how long, and under what conditions. In particular two key issues are that many resources are only intended as access copies (rather than preservation copies) and that, as they are digitized under CLA licenses, many resources are only available to a particular subset of student or staff at particular times.

Competitors

Considering the ecosystem of art collections at York, there is the question of competition arises. YODL has deliberately been set up to replace some of the previous digital asset management systems and practices such as the storage of images in the VLE and, at least some aspects of, departmental collections and services. It is part of the library's services and is not (currently or obviously) in competition with the provision of print materials.

One possible competitor, however, is the ARTSTOR service. As a licensed collection of images for teaching it could be perceived as offering a similar service to the digital library and in competition for library funding. This, however, is not the case for a number of reasons:

- The current coverage of the ARTSTOR service does not met the needs of the History of Art department.
- Even if the coverage of the ARTSTOR were improved, as a subscription-based resource its ongoing accessibility to the department is not (currently) secured.
- If the coverage of ARTSTOR improved and the library committed to ongoing subscription, this would still not directly compete with YODL. It might impact the number of non-unique digital images which YODL had to hold to support teaching; however, it would not impact on YODL's provision of enhanced access to unique/ research resources. If anything it would allow YODL to focus more on curating the distinctive resources owned by the university.

Wider ecosystems

When considering how YODL fits into a wider ecosystem of repositories and digital libraries one thing that becomes obvious is that because of the primary initial focus on support for teaching much of the digital library's contents have been created under CLA licensing as a result many resources are only accessible to a particular subset of the local community and are not visible to any wider repository network. The access policies for any unique research resources are currently under development.

One question that the articulated ecosystem raises but doesn't answer is how the local art collection ecosystem fits with other history of art image collections. As a subject domain which is heavily reliant on images for teaching history of art is faced with the challenge of the transition from physical to digital and managing digital image collections with the logistical and IPR issues that entails. Considering this as a feature of the medium and the subject there may be resources developed by either the wider academic Art community (possibly available through the relevant HEA subject centre), or by centres of excellence in dealing with images (such as JISC Digital Media http://www.jiscdigitalmedia.ac.uk/) that could be of use to YODL (or if not could present an opportunity to YODL to lead the development of best practices).

Reflections on process

The process of developing and considering an ecological model for York Digital Library has proved to be a valuable experience. The process and its outputs are a useful mechanism for communicating and capturing the complexity of the task facing the Digital Library team at York. From a purely personal perspective, I have found the opportunity to reflect on the different species, environmental factors and interactions extremely valuable. Using ecology as a metaphor may seem contrived, and I admit that introducing complex terms to the process can be confusing, yet what this metaphor does bring is an ability to stand-back and view things in a structured way. The basic principles of species, environmental factors and interactions are simply explained and easy to grasp. Specific areas have become clearer through discussion using this model. For example the process has highlighted the impact of CLA licensing on system design, local interactions and on the repository as part of wider networks and has helped me to see that we must not allow our core vision to be forgotten in the fulfilment of immediate goals. The opportunity to discuss this with a person outside of the institution is as much part of the process as the modelling itself. Without the face to face discussion and external perspective brought by John, I feel that the process would have been of less value. Beyond my own impression, it remains to be seen how useful this will be here at York. I intend to disseminate this report to the project team and to senior managers and hope that they will appreciate the value the modelling has brought to our project.